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 TI Silane aqueous emulsions for waterproofing of building materials  
 IN Feder, Michel; Franzoni, Christine  
 PA Rhodia Chimie, Fr.  
 SO PCT Int. Appl., 27 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA French  
 IC ICM C04B041-49  
 ICS C09D183-04  
 CC 58-6 (Cement, Concrete, and Related Building Materials)  
 FAN.CNT 1

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PI	WO 9965844	A1	19991223	WO 1999-FR1429	19990615 <--
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	FR 2780058	A1	19991224	FR 1998-7638	19980617
	FR 2780058	B1	20010309		
	AU 9941499	A1	20000105	AU 1999-41499	19990615
PRAI	FR 1998-7638	A	19980617		
	WO 1999-FR1429	W	19990615		

#### CLASS

	PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
	WO 9965844	ICM	C04B041-49
		ICS	C09D183-04
	WO 9965844	ECLA	C04B041/49B4; C09D004/00+C08G77/04; C09D183/04+B4 <--
	FR 2780058	ECLA	C04B041/49B4; C09D004/00+C08G77/04; C09D183/04+B4

OS MARPAT 132:53734

AB Aqueous emulsions comprise (1) ≥1 hydrolyzable silane or silane containing oligomer with mol. weight of silane ≤700 g, (2) reaction products of (a) ammonia and/or an aromatic amine and/or a water soluble polyfunctional aliphatic compds containing 2-25 carbon atoms and (b) ≥1 carboxylic acids or anhydrides containing 3-22 carbon atoms, and optionally, (c) ≥1 a metal salt as the reticulation agent. In one embodiment compns. containing 2-Amino-2-ethylpropane-1,3-diol 3.8, stearic acid 7.2, Rhodasurf R.O.X. (isotriidecyclic ethoxyl alc.) 11.8, octyltriethoxysilane 311.6, ammonium zirconium carbonate 3.2, and distilled water 666.4 g. were used. Optionally, the emulsions comprise ≥1 nonionic, anionic, or amphoteric surfactants, and ≥1 resin. The emulsion can be used for waterproofing of concrete, mortar, stones, bricks, tiles, terra cotta, and even wood.

ST silane aq emulsion waterproofing building material; concrete waterproofing aq silane emulsion

IT Anhydrides  
 Carboxylic acids, processes

RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)  
 (C3-C22; silane aqueous emulsions for waterproofing of building materials)

IT Sulfonates  
 RL: MOA (Modifier or additive use); USES (Uses)

(alkanesulfonates, anionic surfactant; silane aqueous emulsions for waterproofing of building materials)

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- IT Silanes  
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
 (alkenyl, waterproofing emulsion; silane aqueous emulsions for waterproofing of building materials)
- IT Sulfonic acids, uses  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (alkyl esters, anionic surfactant; silane aqueous emulsions for waterproofing of building materials)
- IT Polyoxyalkylenes, uses  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (alkyl group-terminated, nonionic surfactant; silane aqueous emulsions for waterproofing of building materials)
- IT Betaines  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (alkyl, amphoteric surfactant; silane aqueous emulsions for waterproofing of building materials)
- IT Sulfonates  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (alkylarene, anionic surfactant; silane aqueous emulsions for waterproofing of building materials)
- IT Betaines  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (amidoalkyl, amphoteric surfactant; silane aqueous emulsions for waterproofing of building materials)
- IT Silanes  
 Silanes  
 RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
 (amino, waterproofing emulsion; silane aqueous emulsions for waterproofing of building materials)
- IT Protein hydrolyzates  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (amphoteric surfactant; silane aqueous emulsions for waterproofing of building materials)
- IT Surfactants  
 (amphoteric; silane aqueous emulsions for waterproofing of building materials)
- IT Surfactants  
 (anionic; silane aqueous emulsions for waterproofing of building materials)
- IT Amines, processes  
 RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)  
 (aromatic; silane aqueous emulsions for waterproofing of building materials)
- IT Salts, processes  
 RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)  
 (as reticulation agent; silane aqueous emulsions for waterproofing of building materials)
- IT Polyoxyalkylenes, uses  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (diol, ester, amide, or amine derivs.; silane aqueous emulsions for waterproofing of building materials)
- IT Coating materials  
 (emulsion, water-resistant; silane aqueous emulsions for waterproofing of building materials)
- IT Amides, uses  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (fatty, nonionic surfactant; silane aqueous emulsions for waterproofing of building materials)
- IT Silanes  
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

- (haloalkyl, waterproofing emulsion; silane aqueous emulsions for waterproofing of building materials)
- IT Silanes  
 RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
 (mol. weight  $\leq$  700 g; silane aqueous emulsions for waterproofing of building materials)
- IT Fatty acids, uses  
 Polyoxyalkylenes, uses  
 Terpenes, uses  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (nonionic surfactant; silane aqueous emulsions for waterproofing of building materials)
- IT Surfactants  
 (nonionic; silane aqueous emulsions for waterproofing of building materials)
- IT Carboxylic acids, uses  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (polycarboxylic, sulfonated; silane aqueous emulsions for waterproofing of building materials)
- IT Fatty acids, uses  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (salts, surfactants; silane aqueous emulsions for waterproofing of building materials)
- IT Waterproofing  
 (silane aqueous emulsions for waterproofing of building materials)
- IT Waterproofing agents  
 (silane based; silane aqueous emulsions for waterproofing of building materials)
- IT Amines, processes  
 Amines, processes  
 Epoxides  
 RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
 (silyl, waterproofing emulsion; silane aqueous emulsions for waterproofing of building materials)
- IT Amides, uses  
 Amides, uses  
 Sulfates, uses  
 Sulfates, uses  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (sulfamates, anionic surfactant; silane aqueous emulsions for waterproofing of building materials)
- IT Bricks  
 Concrete  
 Terra cotta  
 Tiles  
 Wood  
 (waterproofing; silane aqueous emulsions for waterproofing of building materials)
- IT Stone (construction material)  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (waterproofing; silane aqueous emulsions for waterproofing of building materials)
- IT 64-19-7D, Acetic acid, alkyl derivs., uses  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (amphoteric surfactant; silane aqueous emulsions for waterproofing of building materials)
- IT 107-35-7D, Taurine, acylalkyl derivs. 107-36-8 110-15-6D, Succinic acid, alkyl esters 7664-38-2D, Phosphoric acid, alkyl esters, uses  
 7664-93-9D, Sulfuric acid, alkyl esters, uses  
 RL: MOA (Modifier or additive use); USES (Uses)

(anionic surfactant; silane aqueous emulsions for waterproofing of building materials)

IT 22829-17-0D, Ammonium zirconium carbonate, reaction products with carboxylic acids or anhydrides and aromatic amines  
RL: MOA (Modifier or additive use); USES (Uses)  
(as reticulation agent; silane aqueous emulsions for waterproofing of building materials)

IT 99734-09-5D, ethoxyl  
RL: MOA (Modifier or additive use); USES (Uses)  
(nonionic surfactant; silane aqueous emulsions for waterproofing of building materials)

IT 110-91-8, Morpholine, uses 124-09-4, Hexamethylenediamine, uses 302-01-2, Hydrazine, uses 2486-70-6, 3-Methyl-4-Aminobenzoic acid 2943-75-1, Octyltriethoxysilane 9003-07-0D, Polypropylene, diol, ester, amide, or amine derivs. 9043-30-5D, reaction products with aromatic amines, carboxylic acids, and zirconium salts 25322-68-3D, Polyethylene glycol, diol, ester, amide, or amine derivs. 27014-42-2 51178-86-0  
RL: MOA (Modifier or additive use); USES (Uses)  
(silane aqueous emulsions for waterproofing of building materials)

IT 115-70-8D, 2-Amino-2-ethylpropane-1,3-diol, reaction products with carboxylic acids or anhydrides and metal salts  
RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)  
(silane aqueous emulsions for waterproofing of building materials)

IT 57-11-4D, Stearic acid, reaction products with ammonia and metal salts 110-86-1, Pyridine, reactions 7664-41-7D, Ammonia, reaction products with carboxylic acids or anhydrides and metal salts, reactions  
RL: MOA (Modifier or additive use); RCT (Reactant); RACT (Reactant or reagent); USES (Uses)  
(silane aqueous emulsions for waterproofing of building materials)

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) Okada; US 4496687 A 1985 HCPLUS  
(2) Rhone-Poulenc; WO 9747569 A 1997 HCPLUS  
(3) Traver; US 4525502 A 1985 HCPLUS  
(4) Victoria University; WO 9516752 A 1995 HCPLUS

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